A1

side cryptographic function (128) with the dial-up user's private key never being transferred off the security device. An example of the signed response string is described in detail below.

IN THE DRAWING:

Please amend the figure as shown in the marked–up version of the drawing enclosed herein, with changes shown in red. Figure 9 has been amended to correct text within a box of the flowchart.

IN THE CLAIMS:

Please amend the claims as follows.

A2

[c2] (Amended) The network system of claim 1, further comprising:

a security device holding authentication information; and

a security device reader attached to the client computer for reading the security device.

[c14] (Amended) A network system providing integration, comprising:

a client computer;

a server;

a server-side cryptographic function providing cryptographic services located on the server;

A3

a PKI-Bridge providing an interface between the server and the server-side cryptographic function;

a remote access switch providing an interface between the client computer and the server;

a client-side cryptographic function providing cryptographic services located on the client computer;